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REMARKS

This amendment is intended as a full and complete response to the non-final Office action, dated April 4, 2003. In the Office action, the Examiner notes that claims 1-17 are pending, of which claims 1-17 stand rejected. By this amendment, claims 9 and 10 are amended and claims 1-8 and 11-17 continued unamended.

In view of both of the amendments presented above, and the following description the applicant submits that many that many of the claims now pending in the application are obvious under the provision of 35 U.S.C. §103. Thus, the applicant believes that all of these claims are now in allowable form.

A. In the claims

The Examiner has rejected claims 9 and 10 for improperly depending on independent claim 14. In response, the applicant has amended claims 9 and 10 to properly depend from independent 8. In particular, claim 9 has been amended to depend from claim 8, while dependent claim 10 has been amended to depend from claim 9. As such, claims 9 and 10 have been amended to depend from the appropriate independent claim and intervening claims. Therefore, the applicant respectfully requests that the objection be withdrawing.

B. In the Specification

The applicant has amended the specification to provide moderate grammatical corrections and change reference designations to conform to the reference designations in the drawings. Such grammatical corrections or

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reference designation changes does not add any new subject matter to the application.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

A. Claims 1-3, 11 and 12

The Examiner has rejected Claims 1-3, 11, and 12 as being obvious under 35 U.S.C. § 103 over Heuer (US 6,205,121, issued March 20, 2001 hereinafter "Heuer") in view of Schmidt et al. (US 6,205,154, issued March 20, 2001 hereinafter "Schmidt") and Kremer (U.S. 5,390,164, issued February 14, 1995 hereinafter "Kremer"). The applicant respectfully traverses the rejection.

The applicant's independent claim 1 (and similarly claim 11) recites features that the applicant considers as being inventive. In particular, independent claim 1, recites:

"In a communications system utilizing a digital cross-connect system (DCS) element management system (EMS) for managing DCS network elements and a SONET EMS for managing SONET add/drop multiplexer (ADM) network elements, apparatus comprising:

a SONET ring network including a plurality of ADMs, said SONET ring network being managed by said SONET EMS;

a plurality of DCS elements, each of said plurality of DCS elements being managed by said DCS EMS, at least one of said plurality of DCS elements including an ADM that is logically coupled to said SONET network and managed by said SONET EMS, said ADM being coupled to said at least one DCS by a digital link. a SONET ring network including a plurality of ADMs, said SONET ring network being managed by said SONET EMS;

a plurality of DCS elements, each of said plurality of DCS elements being managed by said DCS EMS, at least one of said plurality of DCS elements including an ADM that is logically coupled to said SONET network and managed by said SONET EMS, said ADM being coupled to said at least one DCS by a digital link. (emphasis added)

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As Schmidt was filed April 15, 1997 and issued March 20, 2001, after applicant's February 8, 2000 filing date, Schmidt is a 102(e) -type reference. Schmidt is currently assigned to Lucent Technologies, Inc. , and the applicant's invention is also assigned to Lucent Technologies, Inc. The applicant's invention and Schmidt's were, at the time the applicant's invention was made, owned by, or subject to the obligation of assignment to, Lucent Technologies, Inc. Since this application is a patent application filed on or after November 29, 1999, Schmidt does not preclude patentability under the provisions of 35 U.S.C. §103(c), as amended by the American Inventors' Protection Act of 1999 (see MPEP 706.02(I)(1)). Therefore, the Schmidt reference has been improperly cited against the applicant's invention.

Additionally, the combination of Heuer and Kremer does not teach or suggest the applicant's invention as defined in claims 1-3, 11 and 12. In particular, the Heuer reference discloses three network elements CC1-CC3 of the synchronous digital communications network having the first and second network elements, and the second and third network elements being physically interconnected by, e.g., optical fibers or coaxial cables. The connections shown in FIGS. 2A and 2B represent logical connections, and each of the three network elements CC1 -CC3 is connected via an interface to a central management system TMN. From the latter, they can receive instructions as to which logical connection has to be switched internally (see, col. 4, lines 23-33 and FIGS. 2A and 2B). Nowhere in the Heuer reference is there any teaching or suggestion of the SONET network being managed by a SONET EMS, and the plurality of DCS elements being managed by the DCS EMS. Moreover the Heuer reference fails to teach or suggest "at least one of said plurality of DCS elements including a ADM that is logically coupled to

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said SONET network and managed by said SONET EMS. Therefore, the Heuer reference fails to teach or suggest the applicant's invention as a whole.

Furthermore, the Kremer reference fails to bridge the substantial gap as between the Heuer reference and the applicant's invention. In particular, the Kremer reference merely discloses a first bidirectional line-switch ring 100 and a second bidirectional line-switch ring 101 each having a plurality of ring nodes 110 to 115 and 120 to 125, respectively. Ring nodes 112 and 120 of the first and second line-switch rings 100 and 101 form a shared node 130, and are interconnected by an inter-ring grooming apparatus, such as a digital cross-connect system (DCS) 132 (see, Kremer, col. 3, lines 37-67). Furthermore, each of the ring nodes 110-115 and 120-125 comprises an add-drop multiplexer (ADM) (see, Kremer, col. 4, lines 67 to 68).

However, nowhere in the Kremer reference is there any teaching or suggestion of a SONET ring network including a plurality of ADMs, where the SONET ring network is managed by the SONET EMS. Moreover, nowhere in the Kremer reference is there any teaching or suggestion of at least one of the plurality of DCS elements including an ADM that is logically coupled to the SONET network and managed by the SONET EMS. That is, the DCS 132 and 133 of the Kremer reference do not include an ADM as logically coupled to the SONET network. Rather, the ADMs as shown in the Kremer reference are included in the ring nodes, as opposed to the DCSs. Moreover, the Kremer reference fails to teach or suggest that the ADM that is included within the DCS elements is also managed by the SONET EMS. Therefore, the Kremer reference also fails to teach or suggest the applicant's invention as a whole.

Furthermore, even if the two references could somehow be operably combined, the combination would merely disclose at least two bidirectional

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line-switch rings having a plurality of network elements such as ring nodes, where each network element comprises an ADM and the network elements are managed by a single network manager. By contrast, the applicant's invention provides a DCS EMS to manage the DCS elements, and a SONET EMS to manage the SONET networks, where the SONET EMS manages an ADM Included in the DCS elements. Therefore, the combination of Heuer and Kremer fail to teach or suggest the applicant's invention as a whole.

As such, the applicant submits that independent claim 1, and similarly independent claim 11, are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Furthermore, the claims 2, 3, and 12 respectively depend from Independent claim 11 and recite additional features thereof. As such, and at least for the same reasons as discussed above, the applicant submits that these dependent claims are also not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Therefore the applicant respectfully requests that the rejections be withdrawn.

B. Claims 4-10 and 13-17

The Examiner has rejected claims 4-10 and 13-17 as being obvious under 35 U.S. 103§ over Heuer in view of Schmidt and Kremer, and in further view of Lee, et al. (U.S. 5, 709,001) issued August 25, 1998, (hereinafter "Lee"). The applicant respectfully traverses this rejection.

Claims 4-10 and 13 to 17 respectfully depend from independent claims 1 and 11 and recite additional features thereof. In particular, claim 4 (and similarly claims 5-10 and 13-17) recite in part:

"In a communications system utilizing a digital cross-connect system (DCS) element management system (EMS) for managing DCS network elements and a SONET EMS for

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managing SONET add/drop multiplexer (ADM) network elements, apparatus comprising:
a SONET ring network including a plurality of ADMs, said SONET ring network being managed by said SONET EMS;
a plurality of DCS elements, each of said plurality of DCS elements being managed by said DCS EMS, at least one of said plurality of DCS elements including an ADM that is logically coupled to said SONET network and managed by said SONET EMS, said ADM being coupled to said at least one DCS by a digital link. a SONET ring network including a plurality of ADMs, said SONET ring network being managed by said SONET EMS;
a plurality of DCS elements, each of said plurality of DCS elements being managed by said DCS EMS, at least one of said plurality of DCS elements including an ADM that is logically coupled to said SONET network and managed by said SONET EMS, said ADM being coupled to said at least one DCS by a digital link. (emphasis added)

As discussed above, the Schmidt reference is not considered as prior art under the provisions of 35 U.S.C. §103(c), as amended by the AIPA of the 1999. Furthermore, the teachings of Heuer and Kremer have been discussed above and do not teach or suggest the applicant's invention as a whole.

Furthermore, the Lee reference fails to bridge the substantial gap as between the Heuer and Kremer references and the applicant's invention. In particular, the Lee reference merely discloses an MxM cross-connection (DXC) switch in FIG. 4 as the function of cross-connecting mesh networks to each other. When the ring networks are applied, the MxM cross-connection (DXC) switch has the function of classifying the signals into the signals to be locally added/dropped, and the signals to be transmitted to the network node except the corresponding ring, and passing the remaining signals to the opposite node of the corresponding ring (see Lee, col. 9, lines 15-26).

Accordingly, nowhere in the combined references is there any teaching or suggestion of a SONET ring network being managed by the SONET EMS

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and the plurality of DCS elements being managed by a DCS EMS. Moreover, nowhere is there any teaching or suggestion of a plurality of DCS elements including an ADM as logically coupled to the center network and managed by the SONET EMS. That is, nowhere is there any teaching or suggestion in the combined references of an ADM that is included in the DCS element and that it is further managed by the SONET EMS. Therefore, the combined references fail to teach or suggest the applicant's invention as a whole.

As such, the applicant submits that claims 4-10 and 13-17 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Therefore, the applicant respectfully requests that the rejections be withdrawn.

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CONCLUSION

Thus the Applicants' submit that claims 1-17 are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Steve M. Hertzberg or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted



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